

2016 Children's Safe Products - Reporting Rule update Draft Chemical Evaluation

CAS 335-67-1

Substance Name Perfluorooctanoic acid (PFOA)

Historical Summary

In 2011, Ecology found evidence of Perfluorooctanoic acid (PFOA) exposure, including biomonitoring studies, but no authoritative source identifying PFOA toxicity [1].

The 2016 Washington Toxics Coalition (WTC) petition [2] asserted that PFOA has been identified as an EU substance of very high concern (SVHC) [3] and has been classified as a possible carcinogen by the International Agency for Research on Cancer (IARC) [4].

Toxicity

In 2013, PFOA was identified as an SVHC (due to reproductive toxicity) [3], as a result of implementing the EU Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) legislation. Substances that may have serious and often irreversible effects on human health and the environment are designated as SVHCs under REACH. If a substance is identified as an SVHC, it will be added to the Candidate List for eventual inclusion in the Authorisation List [3].

In 2016, IARC classified PFOA as possibly carcinogenic to humans (Group 2B) [4]. IARC is a specialized cancer agency of the World Health Organization (WHO) with a mission to coordinate and conduct research on the causes of human cancer, the mechanisms of carcinogenesis, and to develop scientific strategies for cancer control. IARC publishes monographs which identify carcinogenic chemicals [e.g., 4].

Exposure

PFOA has been detected in serum in human biomonitoring studies [4, 5], as well as in house dust [4].

References

1. Ecology, 2011, Process used to generate the CSPA reporting list. Available at the bottom of this webpage: <http://www.ecy.wa.gov/programs/hwtr/rtt/cspa/chcc.html>
2. Washington Toxics Coalition, Petition to Ecology for CSPA rulemaking. August 5, 2016.
3. ECHA Candidate List of substances of very high concern for Authorisation (SVHC), <http://echa.europa.eu/candidate-list-table>
4. International Agency for Research on Cancer (IARC), 2016. Monograph 110. Carcinogenicity of perfluorooctanoic acid, tetrafluoroethylene, dichloromethane, 1,2-dichloropropane, and 1,3-propane sultone. <http://monographs.iarc.fr/ENG/Monographs/vol110/index.php>
5. Centers for Disease Control and Prevention (CDC). 2015. Fourth National Report on Human Exposure to Environmental Chemicals: Updated Tables February 2015. Atlanta, GA. Available: <http://www.cdc.gov/exposurereport/>